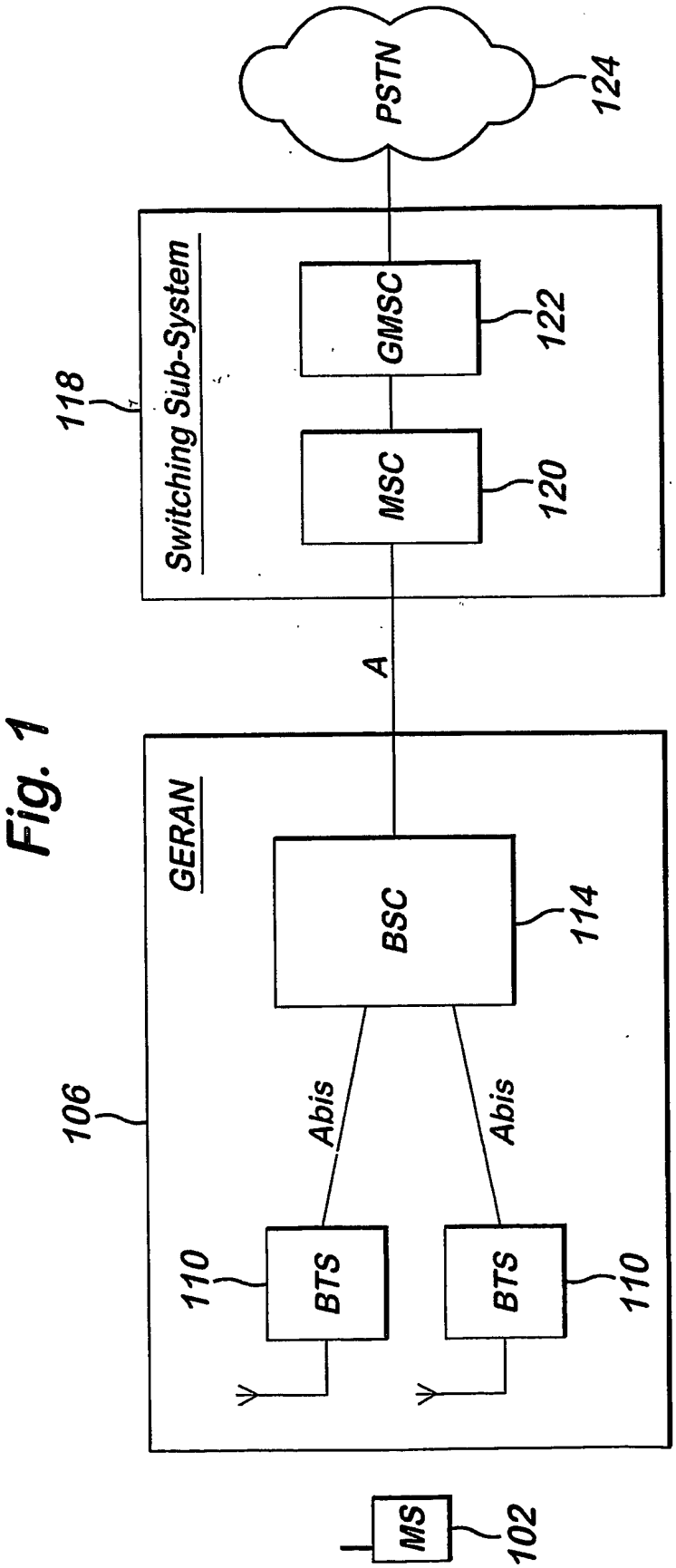
PSTN
124
Switching Sub-System
118
GMSC
122
MSC
120
A
GERAN
106
BSC
114
Abis
Abis
BTS
110
BTS
110
MS
102

Fig. 1

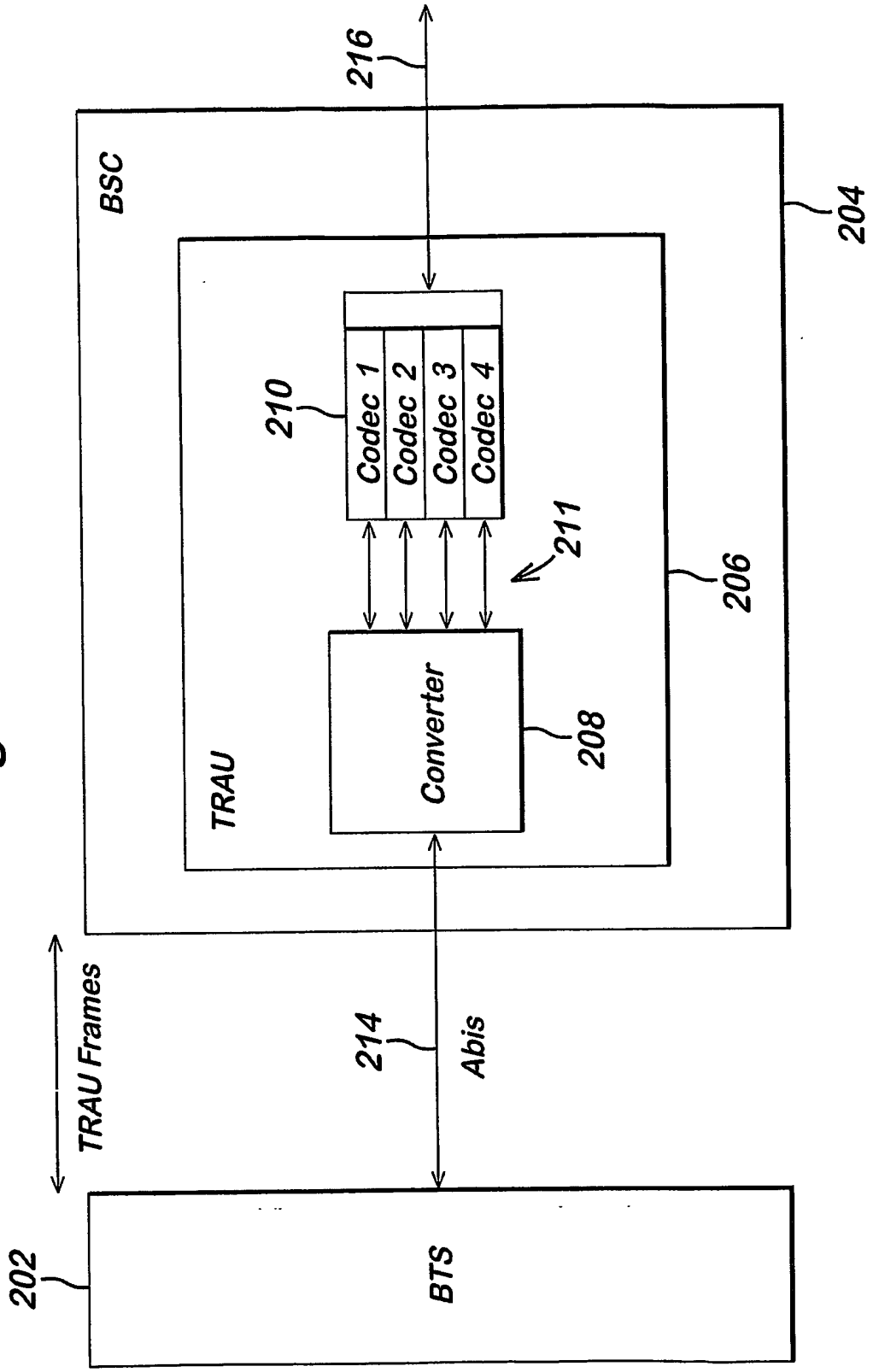
216
BSC
204
210
Codec 1
Codec 2
Codec 3
Codec 4
211
206
TRAU
Converter
208
TRAU Frames
214
Abis
202
BTS

Fig. 2

Fig. 3

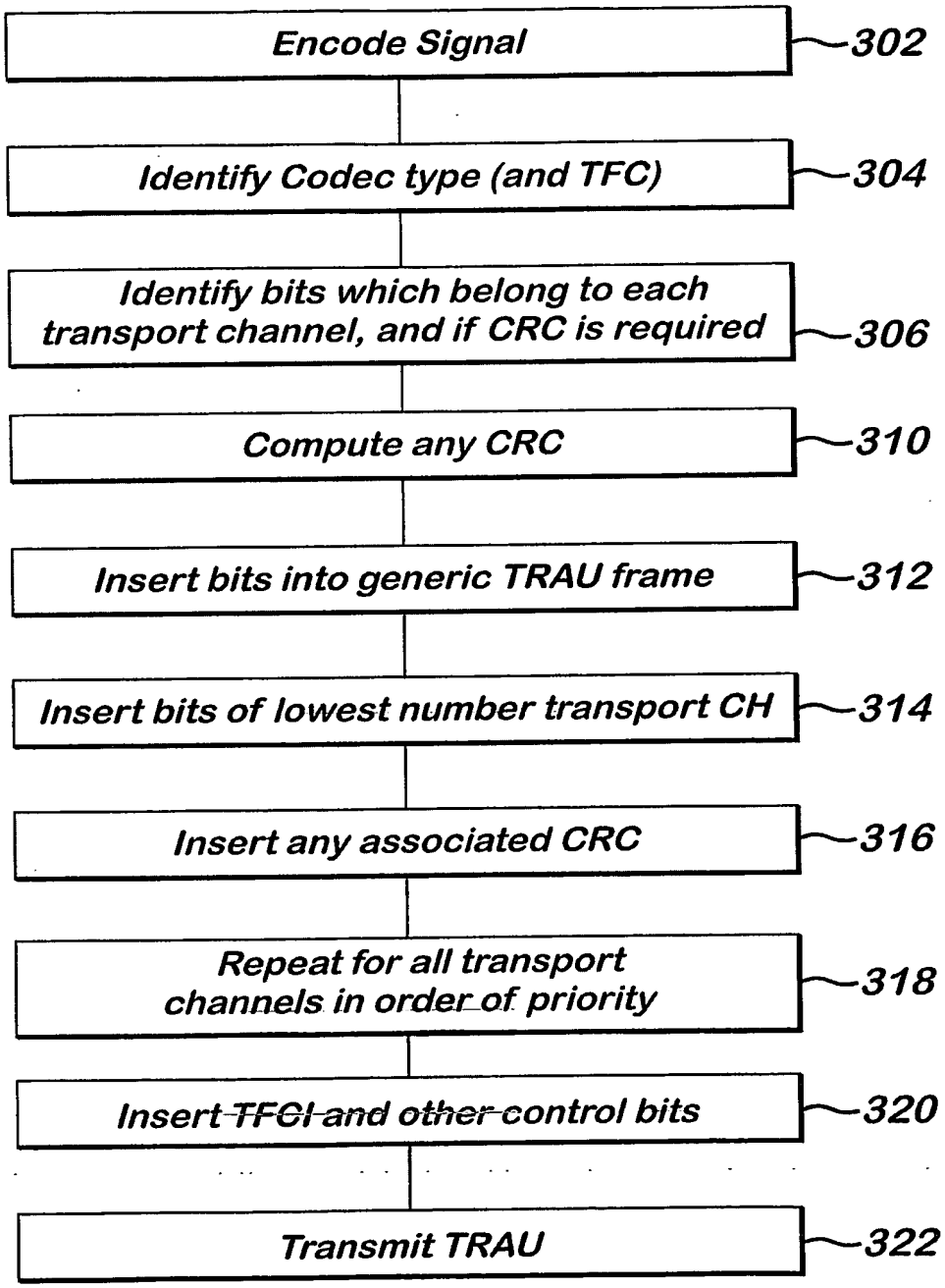
Encode Signal
302
Identify Codec type (and TFC)
304
Identify bits which belong to each transport channel, and if CRC is required
306
Compute any CRC
310
Insert bits into generic TRAU frame
312
Insert bits of lowest number transport CH
314
Insert any associated CRC
316
Repeat for all transport channels in order of priority
318
Insert TFCI and other control bits
320
Transmit TRAU
322

Fig. 4

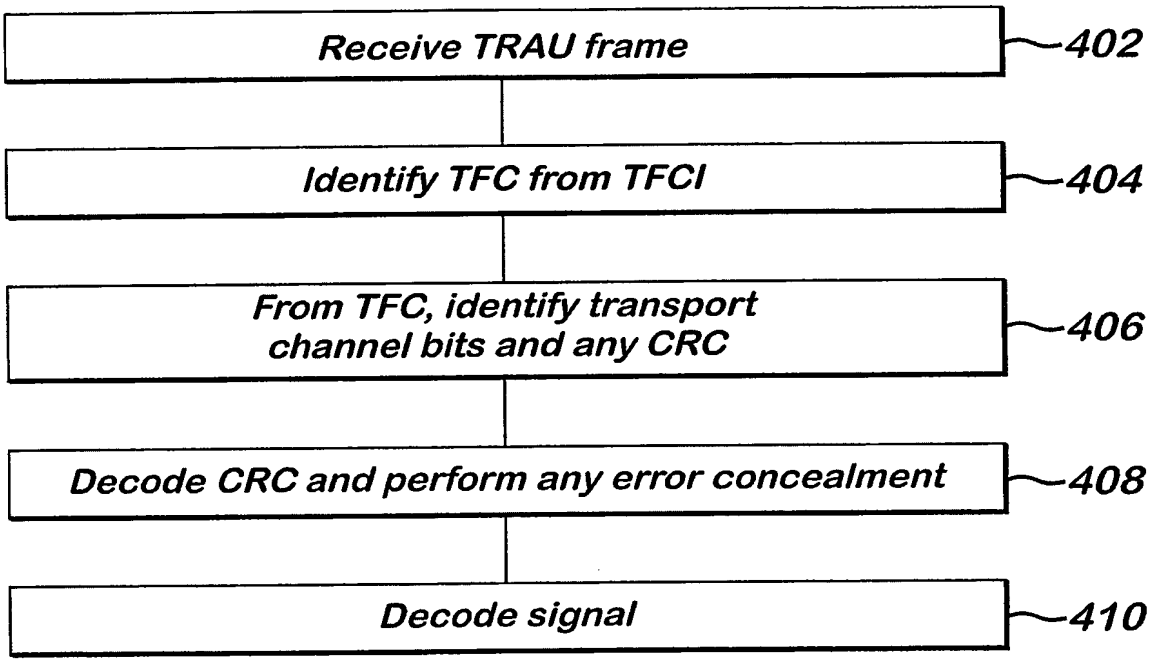
Receive TRAU frame
402
Identify TFC from TFCI
404
From TFC, identify transport channel bits and any CRC
406
Decode CRC and perform any error concealment
408
Decode signal
410

Fig. 6

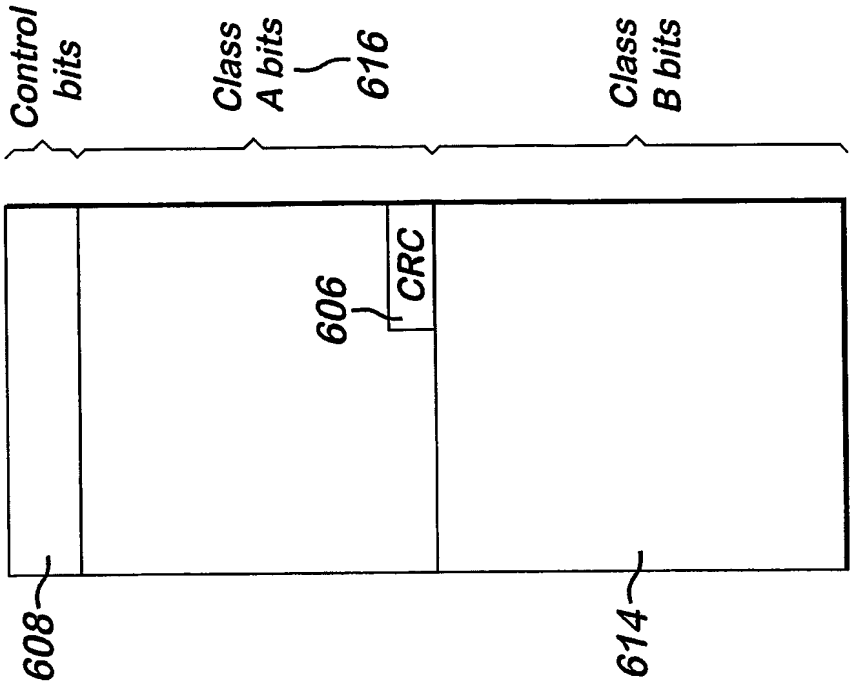
600
Control bits
Class A bits
616
Class B bits
606
CRC
608
614

Fig. 5

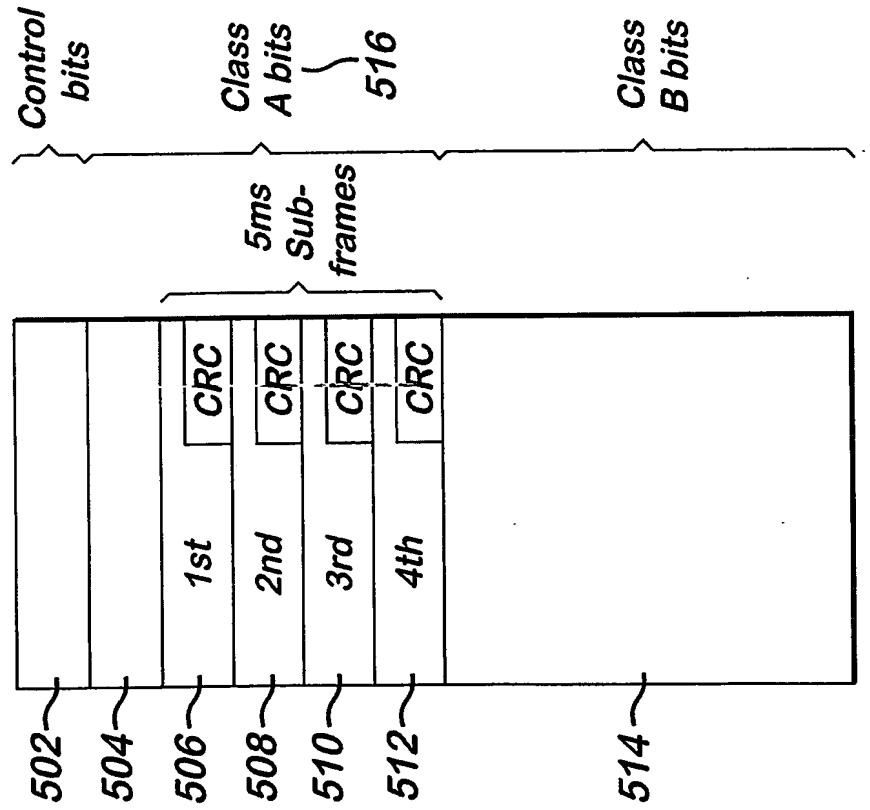
500
Control bits
Class A bits
516
Class B bits
5ms Sub-frames
CRC
CRC
CRC
CRC
1st
2nd
3rd
4th
502
504
506
508
510
512
514

Fig. 7

702 Frame_Classification	704 RIF	706 CMI/CMR	708 No_Speech_Classification	710 TFCI
speech	0	codec mode A	n/a	0001
speech	0	codec mode B	n/a	0010
speech	0	codec mode C	n/a	0011
speech	0	codec mode D	n/a	0100
speech	0	codec mode E	n/a	0101
speech	0	codec mode F	n/a	0110
speech	0	codec mode G	n/a	0111
speech	0	codec mode H	n/a	1000
speech	1	X	n/a	TFCI of previous frame
no speech	X	X	SID first	1001
no speech	X	X	SID update or SID bad	1010
no speech	X	X	no data	n/a

Note 1: X denotes 'don't care'

Note2: RIF=1 indicates that the CMI/CMR corresponds to a codec mode request, and that the codec mode indicator shall take on the same value as the previous frame

Note 3: 'no data' indicates that nothing shall be transmitted during the current frame